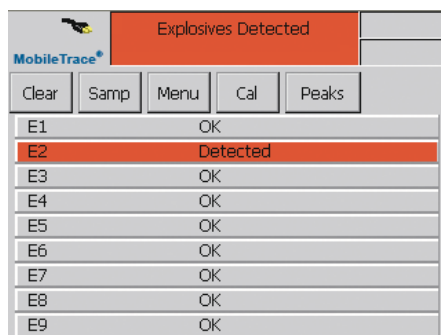# MobileTrace®

CARRY MORE DETECTION POWER

To help keep ahead of the growing challenges of explosives and narcotics detection, the MobileTrace® handheld packs the advanced capabilities of simultaneous dual-mode detection into a powerful, user-friendly handheld.

MobileTrace, the first simultaneous dual-mode handheld detector, expands the range of target explosives you can identify in a single sample for faster, more comprehensive security screening. Morpho Detection's patented ITMS™ (Ion Trap Mobility Spectrometry) technology offers you the explosives and narcotics detection, sensitivity and reliability proven at military bases, border crossings, airports, and other critical security checkpoints around the world.
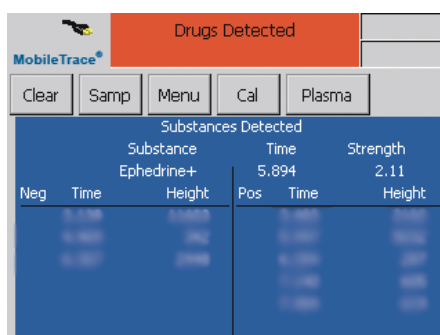
Unparalleled Detection Technology

• Simultaneous, dual-mode system for a broad range of explosives detection
• Detects explosives and narcotics simultaneously in seconds
• Flexible user interface with a wide range of operating levels
• State-of-the-art battery for long life, hot swappable for continued operation
• Ergonomic design for grab-and-go portability
• Easy-to-access components for quick maintenance
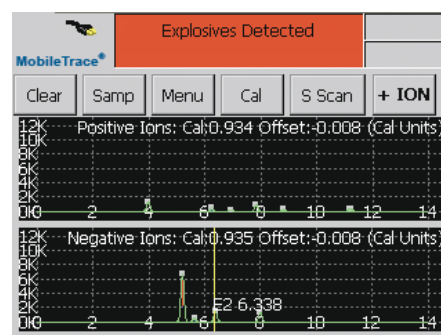• Network ready/USB compliant

SAFRAN
Morpho

SelectScan view showing substances in code format to maintain privacy. User may use code settings or opt for default setting of non-coded displays.

Peaks view is a tabular form of a Plasmagram view.

Plasmagram view shows peak height versus time-of-flight of the detected substance.

Simultaneously test for a wide range of explosives and narcotics in seconds. While most explosives have negative ion affinity, some important explosives have positive ion affinity. MobileTrace uses the patented simultaneous dual-mode technology of the field-proven Itemiser® desktop system to detect both negative and positive ions at the same time. Historically, hand-helds work in one mode at a time, and require changing components and additional samples to test for both types of ions. With MobileTrace, you can meet your mission-critical trace detection objectives with efficient throughput and ease of use across a range of substances.

Easy Operation, Rich Displays

The MobileTrace graphical interface is intuitive and easy to learn for new operators. Itemiser and EntryScan® users will find the operating system very familiar.

Data is evaluated on a 800 NIT 3.5 in. (8.9 cm) color screen using five display options:

- SelectScan for a simple list of alarm/no alarm status of substances in the library
- Peaks view for a tabular form of time-of-flight and height of peaks detected
- Plasmagram for a graphical representation of peaks detected
- 3-D view and Intensity Map for analytical interpretation (not shown)

To accommodate a range of lighting situations, MobileTrace is designed with adjustable display brightness.

Ergonomic Design

MobileTrace is designed for operator comfort as well as productivity. The instrument features sampling controls on the top and back of the system, which help make positioning the instrument easy. A comfortable handgrip and shoulder strap help ease stress. The lightweight design improves maneuver-ability, and for those tight spaces, MobileTrace comes with a sampling wand for particulate collection.

Particle and Vapor Sampling

MobileTrace gives you the flexibility to swipe surfaces for trace particles or to analyze vapors.

- **Particle swipe**: MobileTrace conveniently uses standard Morpho Detection sample traps. The Teflon®-coated traps are swiped across a surface and inserted into the system for analysis. Typical sampling objects include clothing, skin, baggage, cargo, vehicles, containers, tickets and ID cards.
- **Vapor sampling**: Vapors are drawn through a nozzle directly into the system for analysis. Typical sampling objects include cargo containers, car trunks and luggage.

OPTIMAL DETECTION IN A COMPACT DESIGN

Sensitivity/Selectivity

- Patented simultaneous detection of both positive and negative ions enables detection and identification of a broad range of explosives, while also detecting narcotics
- Patented ITMS technology detects microscopic traces of substances rapidly and accurately
- Semi-permeable membrane filters out dust and dirt for reliable operation in harsh environments with high traffic, humidity or contamination

Versatile

- Three default user levels (operator, maintenance and administrator) for access control
- State-of-the-art networking capability and USB connectivity
- ITMS desktop software enables file management, analysis and printing

- Option to use substance codes instead of substance names for privacy and security
- Expandable libraries accommodate unique user requirements

Easy to Use

- Touch screen with text or icon menus, 800 NIT 3.5 in. (8.9 cm) color, glare resistant display
- Navigation pad, touch screen keypad and optional keyboard
- Easy-to-learn graphical interface
- Semi-automated or manual calibration
- Easy access to components for efficient maintenance
- Many local language options available

Portable

- Lightweight 9.4 lb (4.3 kg) with battery
- Shoulder strap and easy-access sample trigger buttons
- Two batteries, up to four hours each, with plug-in charger or in-unit trickle charge
- Internal back-up batteries for maintaining uptime while swapping main battery
- 12 VDC vehicle adapter for charging during transport

Reliable

- Auto-save to prevent data deletion
- Solid state flash hard disk
- Tough against the elements, with protective desorber guard

Cost Effective

- Simultaneous dual-mode testing allows for high throughput, less labor and reduced capital investment
- Shared components with other trace detectors may reduce consumables costs, ordering expenses and inventory requirements

TECHNICAL SPECIFICATIONS

Detector Type	Ion Trap Mobility Spectrometer (ITMS™)
Detector Modes	Explosives optimized Narcotics optimized Vapor mode
Analysis Time	Default 8 seconds
Sample Aquisition	Particle swipe or vapor sampling
Warmup Time	Allow 30 minutes for system to stabilize; typical operation is 24x7
Operating Temperature	0 to 50°C (32 to 122°F), up to 95% RH (non-condensing)
Storage Environment	-20 to 60°C (-4 to 140°F), up to 95% RH (non-condensing)
Power	115/230 VAC, 50/60 Hz 12 VDC, vehicle adaptor (cable included) Two rechargeable Li-Ion batteries, up to four hours each, charger included Internal back-up batteries to maintain power while swapping batteries
Computer	Industrial grade, single-board computer, solid-state hard disk 1 GB or greater file storage capacity Ethernet and USB connectivity
Display	800 NIT 3.5 in. (8.9 cm), transflective QVGA color LCD with adjustable LED backlight Touch screen with screen-based keyboard Output to five different display types including substance listing, time-of-flight plasmagram and tabular displays, 3-D and Intensity Map

DIMENSIONS

MobileTrace Unit

Length	16.1 inches (409 mm)
Width	6.0 inches (152 mm)
Height	12.4 inches (315 mm)
Weight (with battery)	9.4 lb (4.3 kg)

Handwand

Length	11 in (279 mm)
Diameter	1.1 in (28 mm)
Weight	2.3 oz (65 g)

Certifications

CE; ISO9001; Compliant to International Safe Transit Association (ISTA), Procedure 2A, standards

MobileTrace® *Explosives*

The MobileTrace® Explosives is a chemical detector designed for dedicated screening of explosives at checkpoints. It detects all major classes of explosives including peroxides, nitrate based and plastic explosives, as well as precursors and taggants.

The MobileTrace Explosives includes MDI's tested and widely adopted ITMS™ technology with simplified sample results for non-technical users. The unit will give strong visual notifications of alarms, without the need for technical analysis. There are just two simple trigger buttons and a simple operating process via the color LCD touchscreen.

Unparalleled Detection Technology

- Detects explosives in seconds
- Flexible user interface with a wide range of operating levels
- State-of-the-art battery for long life, hot swappable for continued operation
- Ergonomic design for grab-and-go portability
- Easy-to-access components for quick maintenance
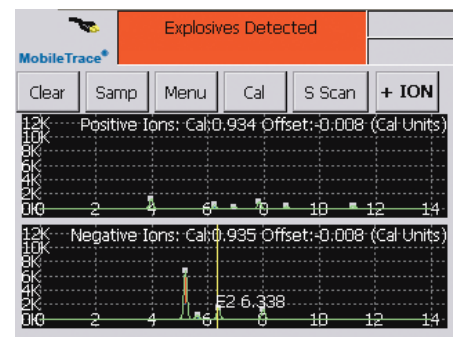- Network ready/USB compliant

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SelectScan view showing substances in code format to maintain privacy.

Peaks view is a tabular form of a Plasmagram view.

Plasmagram view shows peak height versus time-of-flight of the detected substance.

The MobileTrace Explosives also allows supervisors to create consistent directives throughout a fleet of trace devices, minimizing variability and reminding end users of the correct protocols and response to operational warnings.

Since the 1990s, MDI's ITMS core technology has been adopted by governments around the world as a reliable, tested, and proven method to screen for trace levels of explosives. We are proud of our track record, and work with customers to deploy accurate, safe, and scientifically-validated technology.

Quality results, no interpretation

- Detects explosives in seconds
- Strong and clear alarms
- Simplified user interface, basic software
- Customizable supervisory notes
- All sample data saved on board and downloadable
- Basic kit of accessories with additional items available
- Vapor kit
- 80 NIT glare resistant display
- Downloadable user manual and maintenance logs
- Available in eight standard languages: English, French, Spanish, Portuguese, Turkish, Polish, Italian, Russian

STRONG TOOL, SIMPLE RESULTS

Sensitivity/Selectivity

- Patented detection of a broad range of explosives
- Patented ITMS technology detects microscopic traces of substances rapidly and accurately
- Semi-permeable membrane filters out dust and dirt for reliable operation in harsh environments with high traffic, humidity or contamination

Versatile

- Three default user levels (operator, maintenance and administrator) for access control
- Networking capability and USB connectivity
- Option to use substance codes instead of substance names for privacy and security
- Free software upgrades

Easy to Use

- Touch screen with text, 3.5 in. (8.9 cm) color, glare resistant display
- User programmable responses to instrument warnings
- Touch screen keypad and optional keyboard
- Simple user interface
- Semi-automated or manual calibration
- Easy access to components for efficient maintenance

Portable

- Lightweight 9.4 lbs (4.3 kg) with battery
- Shoulder strap and easy-access sample trigger buttons
- Main battery up to four hours, in-unit trickle charge
- Internal back-up batteries for maintaining uptime while swapping main battery
- Optional 12 VDC vehicle adapter for charging during transport

Reliable

- Auto-save to prevent data deletion
- Solid state flash hard disk

Cost Effective

- Shared components with other trace detectors may reduce consumables costs, ordering expenses and inventory requirements

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MobileTrace® *Narcotics*

Designed for law enforcement, correctional and customs use during screening or at checkpoints, the MobileTrace® Narcotics device detects all major classes of narcotics in seconds including opiates, cocaine- and amphetamine-based drugs.

The MobileTrace Narcotics includes MDI's tested and widely adopted ITMS™ technology with simplified sample results for non-technical users. The unit will give strong visual notifications of alarms, without the need for technical analysis. There are just two simple trigger buttons and a simple operating process via the color LCD touchscreen.
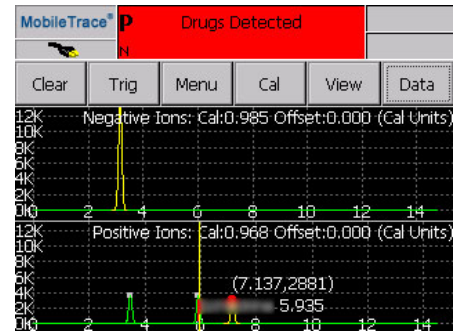
Unparalleled Detection Technology
- Detects narcotics in seconds
- Flexible user interface with a wide range of operating levels
- State-of-the-art battery for long life, hot swappable for continued operation
- Ergonomic design for grab-and-go portability
- Easy-to-access components for quick maintenance
- Network ready/USB compliant

SAFRAN
Morpho

SelectScan view showing substances in code format to maintain privacy.

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Plasmagram view shows peak height versus time-of-flight of the detected substance.

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Quality results, no interpretation

- Detects explosives in seconds
- Strong and clear alarms
- Simplified user interface, basic software
- Customizable supervisory notes
- All sample data saved on board and downloadable
- Basic kit of accessories with additional items available
- Vapor kit
- 80 NIT glare resistant display
- Downloadable user manual and maintenance logs
- Available in eight standard languages: English, French, Spanish, Portuguese, Turkish, Polish, Italian, Russian

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- Internal back-up batteries for maintaining uptime while swapping main battery
- Optional 12 VDC vehicle adapter for charging during transport

Reliable

- Auto-save to prevent data deletion
- Solid state flash hard disk

Cost Effective

- Shared components with other trace detectors may reduce consumables costs, ordering expenses and inventory requirements

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